Fernando Angelini (*) & Jonathan Cooter (**)

NEW DATA AND SPECIES OF AGATHIDIINI (COLEOPTERA, LEIODIDAE) FROM CHINA

We refer in this paper about the study of 108 specimens of Agathidiini, belonging to 21 species, which were collected by Jonathan Cooter and Peter Hlaváč in China (Fujian and Jiangxi Provinces and Beijing region) during May and June 2001 and by Prof Zhou Hong-Zhang in China (Hubei Province) during July and August 1998. A further species was collected by Dr John Fellowes in Guangxi Province and by Dr. David Wrase in Hubei and Shaanxi Province.

The material includes 15 new species: *Cyrtoplastus fujianicus* n. sp., *Agathidium* (*Neoceble*) *zhoui* n. sp., *A.* (*Agathidium*) *patris* n. sp., *A.* (*A.*) *paralasti* n. sp., *A.* (*A.*) *huangganshanicum* n. sp., *A.* (*A.*) *jiuchongense* n. sp., *A.* (*A.*) *hubeicum* n. sp., *A.* (*A.*) *shennongjiaense* n. sp., *A.* (*A.*) *melancholicum* n. sp., *A.* (*Microceble*) *wuyishanicum* n. sp., *A.* (*Macroceble*) *hlavaci* n. sp., *A.* (*Macr.*) *dongnanense* n. sp., *A.* (*Macr.*) *penultimum* n. sp., *A.* (*Macr.*) *soror* n. sp., *A.* (*Macr.*) *ultimum* n. sp., for which descriptions are given. In addition *Agathidium mequignoni* Roubal is recorded new to China; *Cyrtoplastus chinensis* Ang. & Švec, *Agathidium inerme* Ang. & Dmz. and *Agathidium lugubre* Ang. & Dmz. new respectively to Hubei, Shaanxi and Jiangxi Province; a specimen thought to be *Agathidium emeicum* Ang. should be new to Jiangxi Province.

The specimens are deposited in the collection of the Institute of Zoology, Chinese Academy of Sciences, Beijing (Bj), in Cooter (CC) and in Angelini collections in Museo Civico di Storia Naturale "G.Doria", Genova (CA-MCSNG).

Jonathan Cooter (and on behalf of Peter Hlaváč) wishes to record sincere thanks to Professor Yang Xingke (Chinese Academy of Scien-

---

(*) S.S. 7 per Latiano, Km. 0.500 – 72021 Francavilla Fontana (Brindisi), Italy.

(**) 19 Mount Crescent - Hereford HR1 1NQ, England.

ces, Beijing) for organising the visit; to Ph. D. candidate Ge Si Qin for her companionship and unfailing energy in attending to the day logistics and occasional last minute revisions to the schedule; to the staff at Wuyi Shan Nature Reserve for arranging all the necessary permits and providing transport and finally to the staff at the Forestry Research Station, Xiaolongmen for a thoroughly enjoyable stay and for not telling them that they had infused snake gall bladders in the rice wine. Thanks also to Dr John Fellowes and Dr. David Wrase for generously presenting the Guangxi, Hubei and Shaanxi material. Jonathan Cooter's visit to China was supported by a Royal Society ex-agreement study grant.

Genus *Cyrtoplastus* Reitter, 1884

Cyrtoplastus chinensis Ang. & Švec

Cyrtoplastus chinensis Angelini & Švec, 1994, Acta Soc. zool. bohem., 58: 8; Angelini & Cooter, 1998, Entomologist's Gazette, 49: 134; 1999, Oriental Insects, 33: 224; Angelini, 2000, Annali Mus. civ. St. nat. "G. Doria", 93: 162.

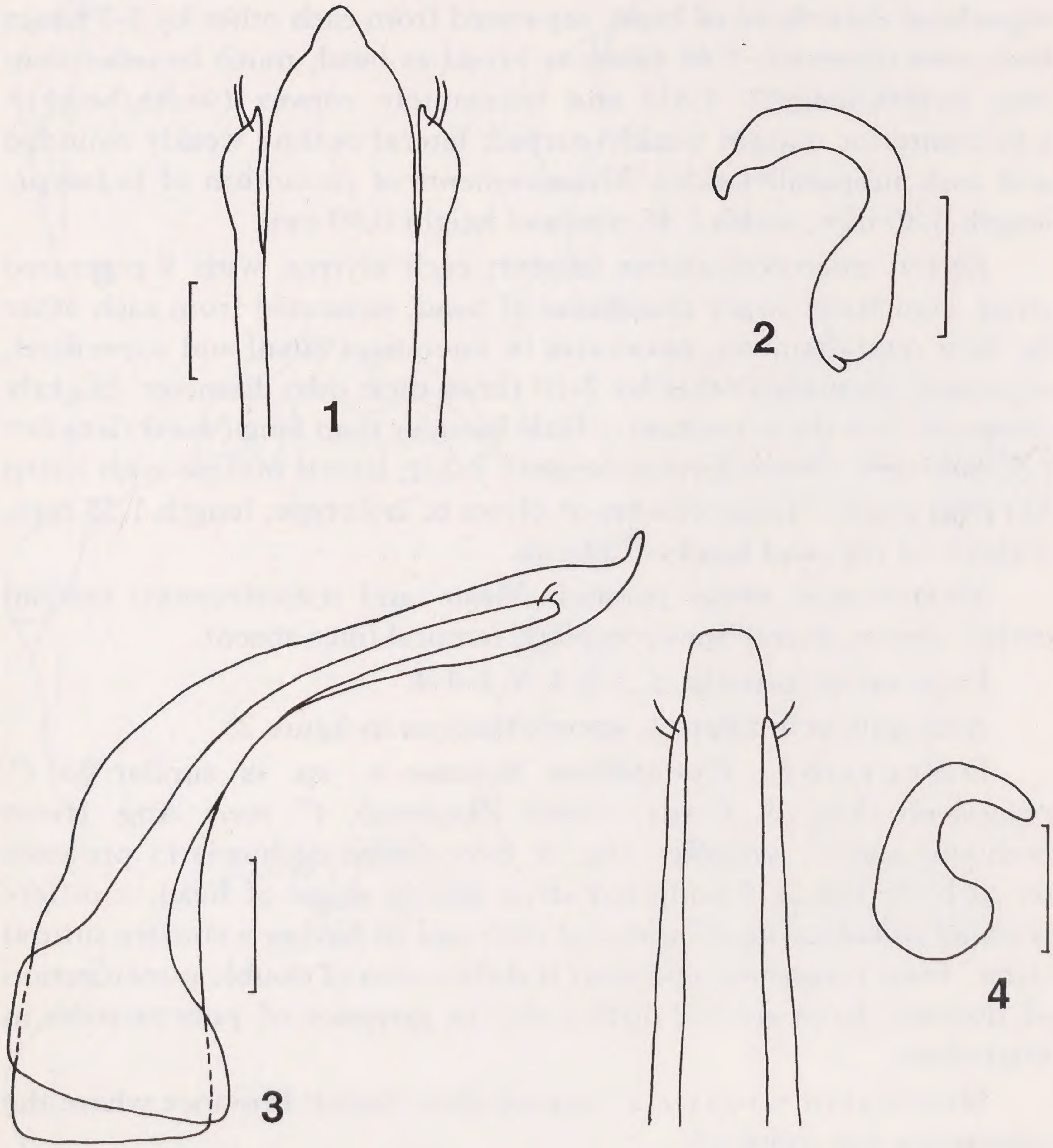
Material: China, Beijing, Dongling Mts., Xiaolongmen, 1400 m, 39°97'N-115°43'E, Liu Lang Yu mixed forest litter, 15.VI.2001, leg. Cooter & Hlaváč, 1 ♂ and 2 ♀♀ in CC; Hubei Prov., Shennongjia Nat. Res., Guanmenshan, 23.VII.98, 1460 m, leg. H.-Z. Zhou, 1 ♀, in Bj.

Distribution: China (Sichuan, Beijing, Hubei). New record for Hubei.

Cyrtoplastus fujianus n. sp. (Figs. 1, 2)

Length 2.95-3.0 mm (holotype ♂ 3.0 mm). Dorsum of head and pronotum reddish-brown, elytra almost black, venter reddish-brown, mesosternum lighter; antennae testaceous with antennal segment 8-10 dark; legs reddish-brown. Microreticulation absent; puncturation double on head, single on pronotum, each elytron with 8 puntured striae. Sutural striae weak, confined to the apical 1/6 of elytron.

Head: microreticulation absent; punctures larger and clearly impressed, separated from each other by 0.5-1 times their own diameter, interposed punctures very small and sparse. Widest at the eyes;



Figs. 1-4: Aedeagus (lateral and dorsal view) of: 1, *Cyrtoplastus fujianus* n. sp. (dorsal view); 3, *Agathidium* (*Neoceble*) *zhoui* n. sp. Spermatheca of: 2, *Cyrtoplastus fujianus* n. sp.; 4, *Agathidium* (*Neoceble*) *zhoui* n. sp.
Scale: 0,1 mm in all the figures of the paper.

eyes protuberant; antero-lateral margins uniformly raised; clypeus moderately narrow; clypeal line sharp. 3rd antennal segment 1.2 times longer than 2nd and longer than 4th + 5th together.

Pronotum: microreticulation absent; punctures smaller and more superficial than those of head, separated from each other by 2-3 times their own diameter; 1.61 times as broad as head, much broader than long (width/length= 1.81) and moderately convex (width/height= 1.61); anterior margin weakly curved; lateral outline weakly rounded and with subparallel sides. Measurements of pronotum of holotype: length 0.80 mm, width 1.45 mm and height 0.90 mm.

Elytra: microreticulation absent; each elytron with 8 puntured striae, punctures larger than those of head, separated from each other by their own diameter, punctures in interstices small and superficial, separated from each other by 2-10 times their own diameter. Slightly narrower than the pronotum, a little broader than long (width/length= 1.1) and very convex (width/height= 1.32); lateral outline with sharp humeral angle. Measurements of elytra of holotype: length 1.55 mm, width 1.72 mm and height 1.30 mm.

Metathoracic wings present. Meso- and metasternum: median carina absent, lateral lines complete, femoral lines absent.

Legs: tarsal formula: ♂ 5-5-4, ♀ 4-4-4.

Aedeagus as in figure 1; spermatheca as in figure 2.

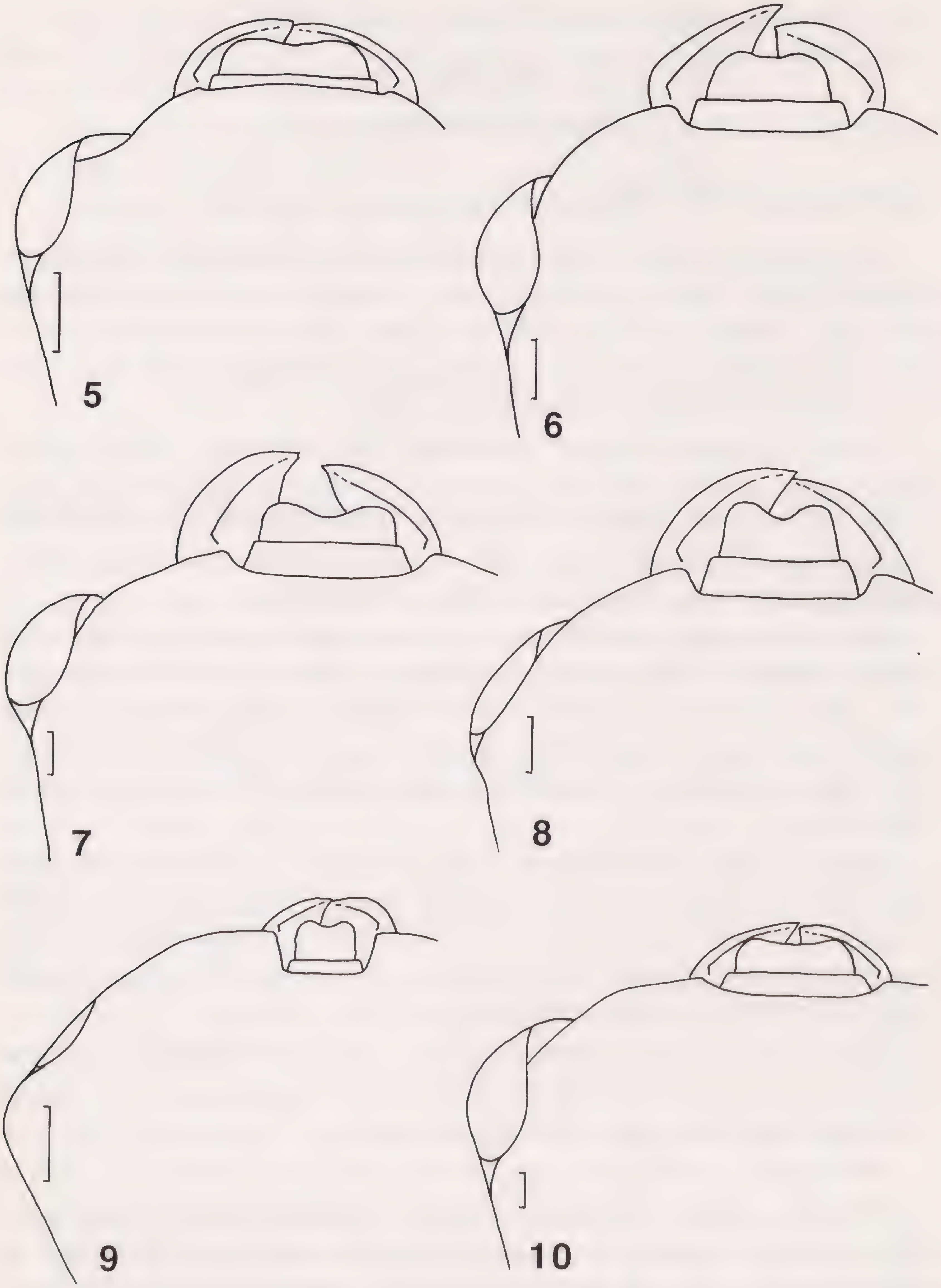
Discussion: *Cyrtoplastus fujianus* n. sp. is similar to *C. rougemonti* Ang. & Cooter (from Zhejiang), *C. sveci* Ang. (from Sichuan) and *C. schuelkei* Ang. & Švec (from Sichuan) in presence on each elytron of 8 puntured striae and in shape of head; it differs from all in colouring of antennal club and in having a shorter sutural striae; from *rougemonti* and *sveci* it differs also in double puncturation of dorsum; from *sveci* it differs also in presence of puncturation in interstices.

Derivatio nominis: named after Fujian Province where the type series was collected.

Holotype ♂: China, Fujian Prov., Wuyi Shan N.R., ca. 1150 m, Qiliqiao-Guadun road, ca 5 Km from Qiliqiao, 27°75'N-117°64'E, 1.VI.2001, mixed forest litter, leg. Cooter & Hlaváč, in Bj.

Paratype: same data as holotype, ca. 1000 m, 8 Km along road to Masu, 6.VI.2001, *Rhododendron* dominant forest, leg. Cooter & Hlaváč, 1 ♀ in CC.

Distribution: China (Fujian).



Figs. 5-10: Head (dorsal view) of: 5, *Agathidium* (*Neoceble*) *zhoui* n. sp.; 6, *A.* (*Agathidium*) *patris* n. sp.; 7, *A.* (*A.*) *paralasti* n. sp.; 8, *A.* (*A.*) *huangganshanicum* n. sp.; 9, *A.* (*A.*) *jiuchongense* n. sp.; 10, *A.* (*A.*) *hubeicum* n. sp.

Genus ***Agathidium*** Panzer, 1797

Subgenus ***Neoceble*** Gozis, 1886
marginatum group

Agathidium (Neoceble) zhoui n. sp. (Figs. 3-5)

Length 2.25-2.30 mm (holotype ♂ 2.25 mm). Dorsum uniformly reddish-brown, venter reddish-brown, mesosternum lighter; antennae uniformly testaceous; legs reddish-brown. Microreticulation superficial and uniform on whole dorsum; puncturation absent, only rare microscopic punctures. Sutural striae absent.

Head: microreticulation superficial and uniform; puncturation absent, only rare microscopic punctures. Widest at the eyes; eyes flattened (fig. 5); antero-lateral margins uniformly raised; clypeus weakly emarginate; clypeal line in traces. 3rd antennal segment 0.8 times longer than 2nd and shorter than 4th + 5th together.

Pronotum: microreticulation and puncturation as on head; 1.51 times as broad as head, moderately broader than long (width/length= 1.63) and moderately convex (width/height= 1.55); anterior margin weakly curved; lateral outline broadly rounded. Measurements of pronotum of holotype: length 0.65 mm, width 1.06 mm and height 0.68 mm.

Elytra: microreticulation and puncturation as on head. Slightly narrower than the pronotum, a little longer than broader (width/length= 0.92) and very convex (width/height= 1.42); lateral outline with sharp humeral angle. Measurements of elytra of holotype: length 1.08 mm, width 1.00 mm and height 0.70 mm.

Metathoracic wings absent. Meso- and metasternum: median carina absent, lateral lines absent, femoral lines absent.

Legs: tarsal formula: ♂ 5-5-4, ♀ 4-4-4.

Aedeagus as in figure 3; spermatheca as in figure 4.

Discussion: *Agathidium zhoui* n. sp. is similar to *A. tarokoense* Ang. & Dmz. (from Taiwan) and *A. nubile* Ang. (from Sichuan). It differs in colouring of antennal club, in presence of metathoracic wings, less length ratio pronotum/head; from *nubile* differs also in being smaller and lower length ratio 3rd/2nd antennal segments; from *tarokoense* differs also in male tarsal formula and in absence of puncturation on whole dorsum.

Derivatio nominis: after Professor Zhou Hong-Zhang, Deputy Director of the Institute of Zoology, Chinese Academy of Sciences, Beijing and collector of the type series.

Holotype ♂: China, Hubei Prov., Shennongjia Nat. Res., Shennongding, 9.VIII.98, 2700 m, leg. H.-Z. Zhou, in Bj.

Paratype: same data as holotype, 1 ♀ in CC.

Distribution: China (Hubei).

Subgenus ***Agathidium*** s. str. Panzer, 1797

madurense group

Agathidium (Agathidium) patris n. sp. (Figs. 6, 11, 12, 16)

Length 3.2-3.5 mm (holotype ♂ 3.4 mm). Dorsum dark reddish-brown or black with head reddish-brown, venter reddish-brown; antennae testaceous with antennal club black; legs reddish-brown. Microreticulation absent; puncturation fine and sparse on whole dorsum. Sutural striae absent.

Head: microreticulation absent; punctures moderately large, clearly impressed, separated from each other by 5-7 times their own diameter. Widest at the eyes; eyes weakly rounded (fig. 6); antero-lateral margins distinctly raised; clypeus weakly emarginate; clypeal line absent. 3rd antennal segment 1.2 times longer than 2nd and longer than 4th + 5th together.

Pronotum: microreticulation absent; punctures as those of head; 1.54 times as broad as head, moderately broader than long (width/length= 1.54) and moderately convex (width/height= 1.54); anterior margin weakly curved; lateral outline broadly rounded. Measurements of pronotum of holotype: length 1.10 mm, width 1.70 mm and height 1.10 mm.

Elytra: microreticulation absent, punctures larger than those on the head, impressed as on head, separated from each other by 6 times their own diameter. Slightly narrower than the pronotum, a little broader than long (width/length= 1.03) and moderately convex (width/height= 1.83); lateral outline with humeral angle very broadly rounded. Measurements of elytra of holotype: length 1.60 mm, width 1.65 mm and height 0.90 mm.

Metathoracic wings present. Meso- and metasternum: median carina sharp, lateral lines absent, femoral lines short, limited at middle of metasternum, a small tubercle present between the metacoxae.

Legs: male hind femora rounded at the posterior margin (fig. 16); tarsal formula: ♂ 5-5-4, ♀ 5-4-4.

Aedeagus as in figure 11; spermatheca as in figure 12.

Discussion: *Agathidium patris* n. sp. is similar to *A. nefandum* Ang. (from Sumatra) and *A. plumbeum* Ang. (from Nepal) in colouring of antennal club; it differs in being of greater length. The three species present very different distribution.

Derivatio nominis: named in memory of John Edward Cooter (2.2.1913 – 26.4.2001), the junior author's father, whose influence and encouragement fired JC's interest in entomology. He was a loving and supportive father always interested to hear of his son's travels and see the beetles collected; he will be greatly missed.

Holotype ♂: China, Fujian Prov., Wuyi Shan N.R., ca. 1200 m, Qiliqiao-Guadun road, ca. 5 Km from Qiliqiao, 27°75'N-117°64'E, 1.VI.2001, mixed forest litter, leg. Cooter & Hlaváč, in Bj.

Paratypes: same data as holotype, 5 ♂♂ and 12 ♀♀ in Bj, CC and CA-MCSNG.

Distribution: China (Fujian).

Agathidium (Agathidium) paralasti n. sp. (Figs. 7,13,14,17)

Length 4.55-4.6 mm (holotype ♂ 4.55 mm). Dorsum dark reddish-brown or black, venter reddish-brown, mesosternum lighter; antennae uniformly testaceous; legs reddish-brown. Microreticulation almost entirely absent, only present in vague traces on elytra; puncturation fine and sparse on whole dorsum. Sutural striae absent.

Head: microreticulation absent; punctures very small, superficial, separated from each other by 5-10 times their own diameter. Widest at the eyes; eyes flattened (fig. 7); antero-lateral margins distinctly raised up; clypeus weakly emarginate; clypeal line absent. 3rd antennal segment 1.2 times longer than 2nd and shorter than 4th + 5th together.

Pronotum: microreticulation absent; punctures smaller and more superficial than those on the head, separated from each other by 5-10 times their own diameter; 1.4 times as broad as head, weakly broader than long (width/length= 1.34) and very convex (width/height= 1.4); anterior margin moderately curved; lateral outline broadly rounded. Measurements of pronotum of holotype: length 1.60 mm, width 2.15 mm and height 1.50 mm.

Elytra: microreticulation present in vague traces, punctures larger than those on the head, superficial, separated from each other by 5-10 times their own diameter. Slightly narrower than the pronotum, as broad as long and weakly convex (width/height= 2); lateral outline with humeral angle very broadly rounded. Measurements of elytra of holotype: length 2.00 mm, width 2.00 mm and height 1.00 mm.

Metathoracic wings absent. Meso- and metasternum: median carina sharp, lateral lines absent, femoral lines almost complete, rounded between the metacoxae.

Legs: male hind femora with a sharp tooth at posterior margin (fig. 17); tarsal formula: ♂ 5-5-4, ♀ 5-4-4.

Aedeagus as in figure 13; spermatheca as in figure 14.

Discussion: *Agathidium paralasti* n. sp. is similar to *A. lasti* Ang. & Cooter (from Zhejiang); it differs in length ratio 3rd/2nd and in greater length size.

Derivatio nominis: for its similarity to *Agathidium lasti* Ang. & Cooter, from Zhejiang Province.

Holotype ♂: China, Fujian Prov., Wuyi Shan N.R., ca. 1200 m, Qiliqiao-Guadun road, ca. 5 Km from Qiliqiao, 27°75'N-117°64'E, 1.VI.2001, mixed forest litter, leg. Cooter & Hlaváč, in Bj.

Paratypes: same data as holotype, 1 ♂ and 1 ♀ in CC.

Distribution: China (Fujian).

seminulum group

Agathidium (Agathidium) mequignoni Roubal

Agathidium (Agathidium) mequignoni Roubal, 1911, Cas. Ces. Spol. Ent., 8: 49; Hlisnikovsky, 1964, Acta ent. Mus. nat. Pragae, supp. 5: 221; Angelini, 1995, Mus. reg. Sci. nat. Torino, Monografie, 18: 278 ; 2001, Annali Mus. civ. St. nat. "G. Doria", 94: 353; Angelini & De Marzo, 1998a, Revue suisse Zool., 105 (1): 133; Angelini & Cooter, 1999, Oriental Insects, 33: 227.

Material: China, Beijing, Dongling Mts., Xiaolongmen, 1400 m, 39°97'N-115°43'E, Lao Pao Gou, mixed forest litter, 17.VI.2001, 1 ♂, leg. Cooter & Hlaváč, in CC; same data but Liu Lang Yu, under fungoid conifer bark, 15.VI.2001, 3 ♀♀ in CC; same data but under fungoid *Juglans* bark, 15.VI.2001, 2 ♀♀ in Bj; same data but bracket fungus, 15.VI.2001, 1 ♀ in CA-MCSNG; same data but mixed forest litter, 15.VI.2001, 1 ♀ in CA-MCSNG.

Distribution: Caucasus, Turkey, North Iran, Kirgizstan, Sibiria, Korea, China (Beijing), Taiwan. New record for China.

laevigatum group

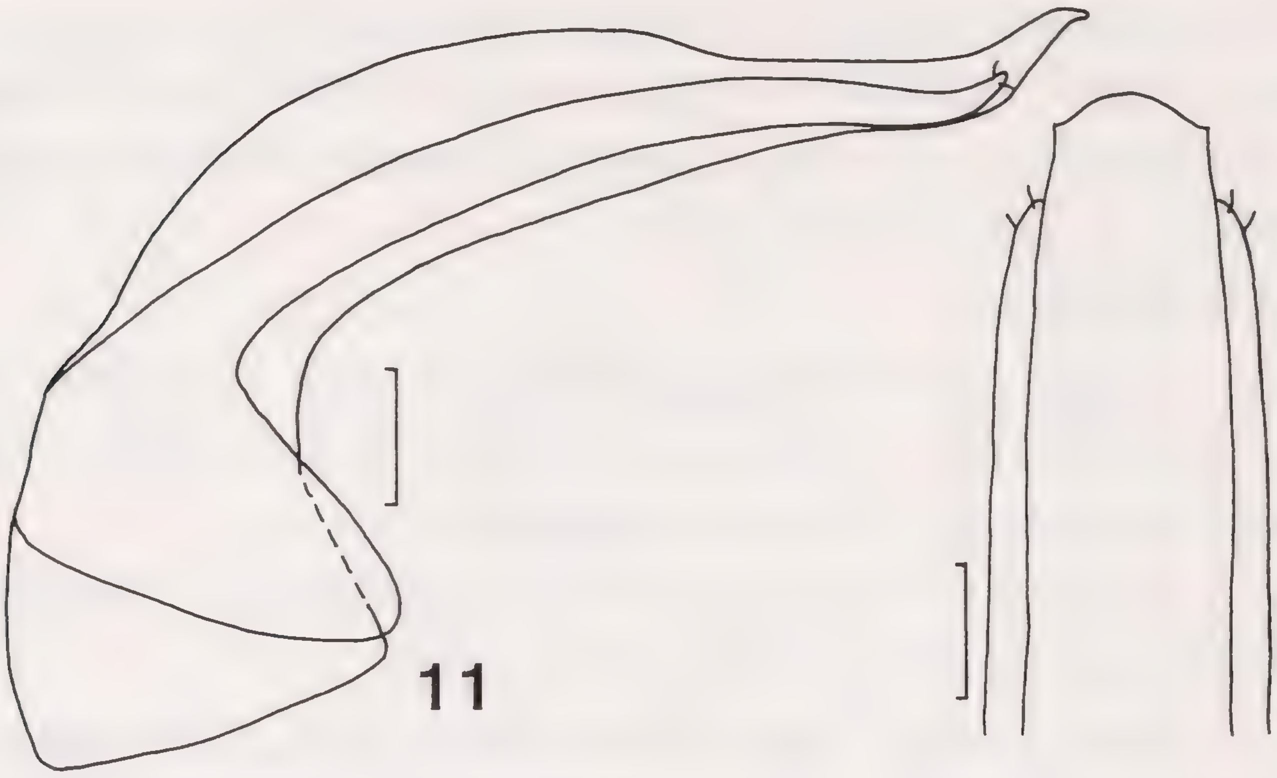
Agathidium (Agathidium) huangganshanicum n. sp. (Figs. 8, 15, 18)

Length 3.3 mm (holotype and paratype). Dorsum and venter reddish-brown; antennae uniformly testaceous; legs reddish-brown. Microreticulation superficial and uniform on elytra; puncturation fine and sparse on head and pronotum, absent on elytra. Sutural striae absent.

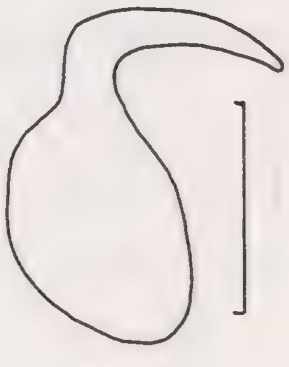
Head: microreticulation absent; punctures small and superficial, separated from each other by 3-8 times their own diameter. Widest at posterior margin of the eyes; eyes flattened (fig. 8); antero-lateral margins uniformly raised; clypeus moderately emarginate; clypeal line absent. 3rd antennal segment 1.6 times longer than 2nd and longer than 4th + 5th together.

Pronotum: microreticulation absent; punctures as those of head; 1.36 times as broad as head, moderately broader than long (width/length= 1.45) and very convex (width/height= 1.45); anterior margin weakly curved; lateral outline broadly rounded. Measurements of pronotum of holotype: length 1.10 mm, width 1.60 mm and height 1.10 mm.

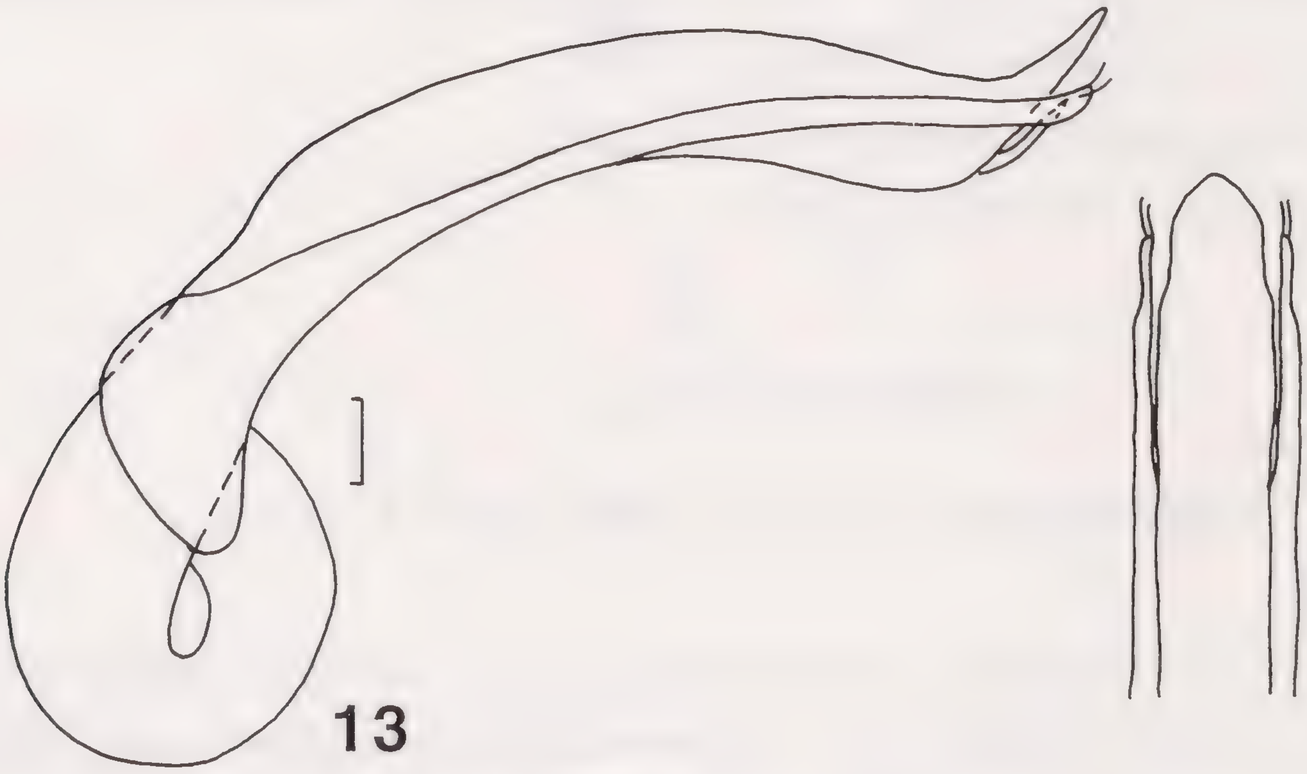
Elytra: microreticulation superficial and uniform, puncturation absent. As broad as pronotum, a little broader than long (width/length= 1.06) and less convex (width/height= 1.88); lateral outline with humeral angle very broadly rounded. Measurements of elytra of holotype: length 1.50 mm, width 1.60 mm and height 0.85 mm.



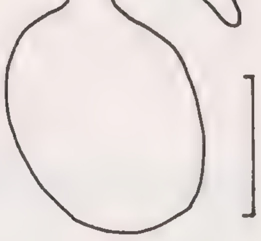
11



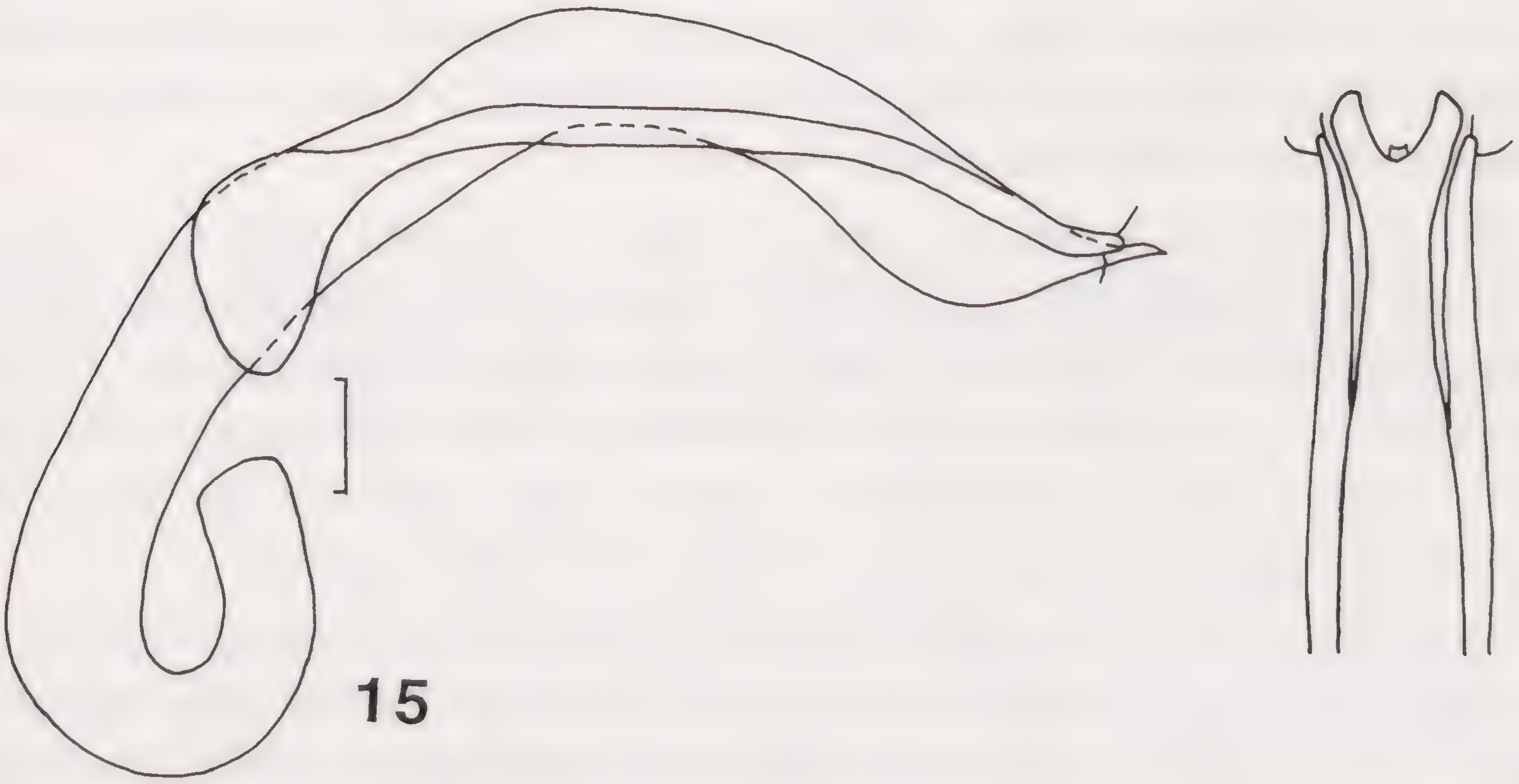
12



13



14



15

Figs. 11-15: Aedeagus (lateral and dorsal view) of: 11, *Agathidium* (*Agathidium*) *patris* n. sp.; 13, *A.* (*A.*) *paralasti* n. sp.; 15, *A.* (*A.*) *huangganshanicum* n. sp. Spermatheca of: 12, *A.* (*A.*) *patris* n. sp.; 14, *A.* (*A.*) *paralasti* n. sp.

Metathoracic wings absent. Meso- and metasternum: median carina sharp, lateral lines absent, femoral lines complete, rounded at middle.

Legs: male hind femora with sharp tooth at posterior margin (fig. 18); tarsal formula: ♂ 5-5-4, ♀ unknown.

Aedeagus as in figure 15.

Discussion: *Agathidium huangganshanicum* n. sp. is similar to *A. rufescens* Ang. & Dmz. (from Sichuan); it differs in less length ratio 3rd/2nd antennal segments and in less length size.

Derivatio nominis: named after Huangganshan, the type locality and highest point (2150 m) in the Wuyi Shan.

Holotype ♂: China, Jiangxi Prov., Wuyi Shan N.R., Huangganshan, ca. 2000 m, 5.VI.2001, 27°84'N-117°76'E, conifer-bamboo broad-leaf litter, leg. Cooter & Hlaváč, in Bj.

Paratype: same data as holotype, 1 ♂ in CC.

Distribution: China (Jiangxi).

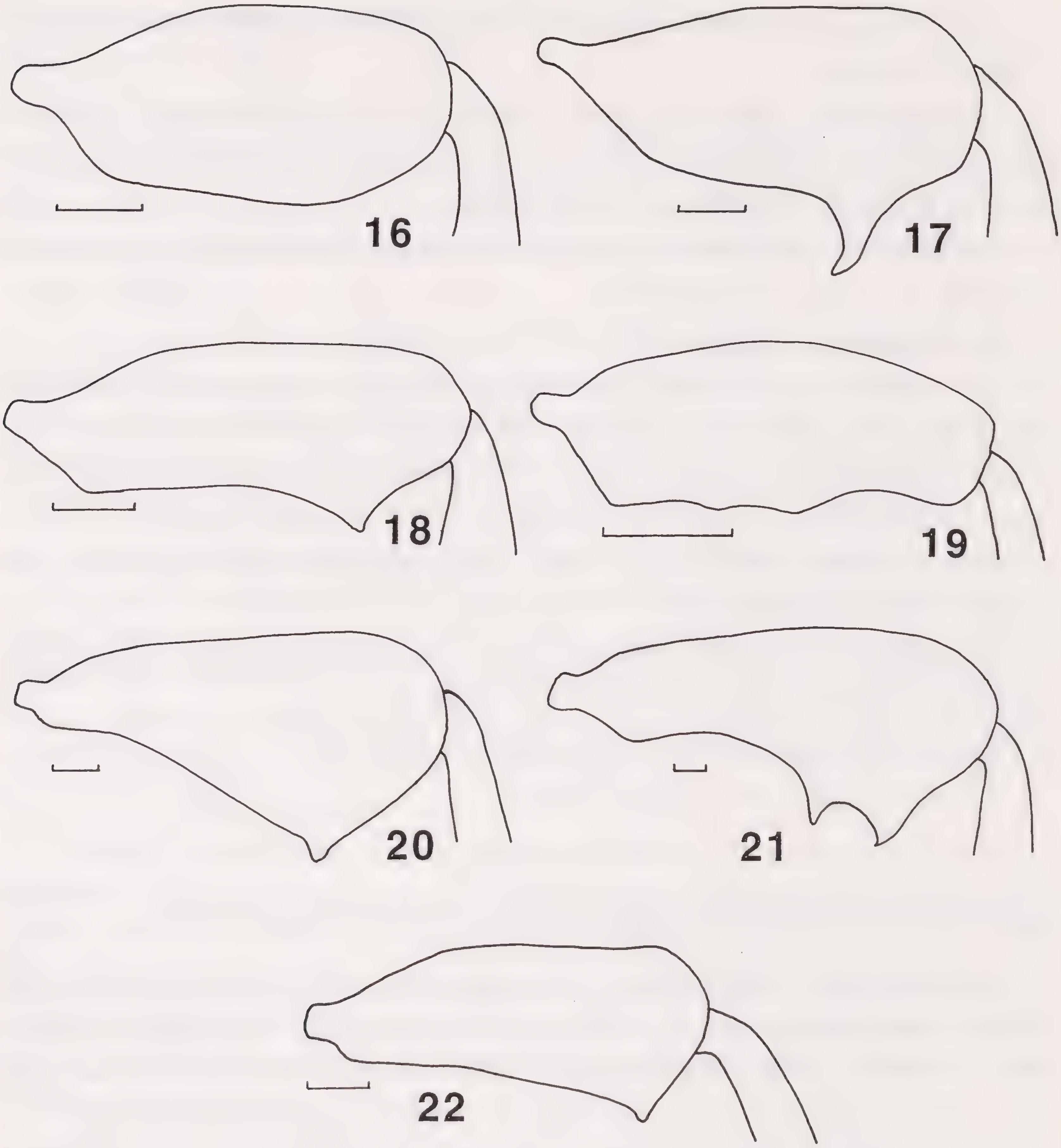
dentatum group

Agathidium (Agathidium) jiuchongense n. sp.
(Figs. 9, 19, 23)

Length 2.5 mm (holotype ♂ and paratype). Dorsum uniformly reddish-brown, venter reddish-brown, mesosternum lighter; antennae uniformly testaceous; legs reddish-brown. Microreticulation absent, present only in traces on head and elytra; puncturation fine and sparse on whole dorsum. Sutural striae absent.

Head: microreticulation almost absent, present only in traces; punctures very small and superficial, separated from each other by 2-10 times their own diameter. Head widest behind eyes, temple 1/2 as long as the eye; eyes flattened (fig. 9); antero-lateral margins uniformly raised; clypeus very emarginate; clypeal line absent. 3rd antennal segment as long as 2nd and shorter than 4th + 5th together.

Pronotum: microreticulation absent; puncturation as that of head; 1.2 times as broad as head, moderately broader than long (width/length= 1.47) and moderately convex (width/height= 1.54); anterior margin weakly curved; lateral outline broadly rounded. Measurements of pronotum of holotype: length 0.73 mm, width 1.08 mm and height 0.70 mm.



Figs. 16-22: Male hind femora of: 16, *Agathidium* (*Agathidium*) *patris* n. sp.; 17, *A.* (*A.*) *paralasti* n. sp.; 18, *A.* (*A.*) *huangganshanicum* n. sp.; 19, *A.* (*A.*) *jiuchongense* n. sp.; 20, *A.* (*A.*) *hubeicum* n. sp.; 21, *A.* (*A.*) *shennongjiaense* n. sp.; 22, *A.* (*A.*) *melancholicum* n. sp.

Elytra: microreticulation almost absent, present only in traces; puncturation greater and more evidently impressed than that on the head, punctures separated from each other by 5-10 times their own diameter. Slightly narrower than the pronotum, much broader than long (width/length= 0.83) and moderately convex (width/height= 1.61); lateral outline with humeral angle very broadly rounded. Measurements of elytra of holotype: length 1.20 mm, width 1.00 mm and height 0.62 mm.

Metathoracic wings absent. Meso- and metasternum: median carina weakly, lateral lines absent, femoral lines incomplete, a weak tubercle present between the metacoxae.

Legs: male hind femora curved at posterior margin (fig. 19); tarsal formula: ♂ 5-5-4, ♀ unknown.

Aedeagus as in figure 23.

Discussion: *Agathidium jiuchongense* n. sp. is similar to *A. tianmuense* Ang. & Cooter (from Zhejiang); it differs in larger size, lesser length ratio 3rd/2nd antennal segments, presence of traces of microreticulation on head and in shape of male hind femora.

Derivatio nominis: after Jiuchong, the locality where the species was first collected.

Holotype ♂: China, Hubei Prov., Shennongjia Nat. Res., Jiuchong, 19.VII.98, 900 m, leg. H.-Z. Zhou, in Bj.

Paratype: same data as holotype, 1 ♂, in CC.

Distribution: China (Hubei).

Agathidium (Agathidium) brunneipenne Ang. & Dmz.

Agathidium (Agathidium) brunneipenne Angelini & De Marzo, 1998b, Revue suisse Zool., 105 (2): 363; Angelini, 1999, Revue suisse Zool., 106 (4): 918; 2000, Annali Mus. civ. St. nat. "G. Doria", 93: 138, 164; Angelini & Cooter, 1999, Oriental Insects, 33: 193, 229.

Material: China, Hubei Prov., Shennongjia Nat. Res., Jiuchong,19.VII.98, 900 m, leg. H-Z. Zhou, 3 ♂♂ and 4 ♀♀, in Bj; same data, 875 m, 1 ♂ and 4 ♀♀, in CC and CA-MCSNG; same data, 870 m, 1 ♂, in CC; same data, Guanmenshan, 30.VII.98, 1720 m, 2 ♀♀, in Bj; same data, 23.VII.98, 1240 m, 3 ♀♀, in Bj; same data, Jiuhuping , 4.VII.1998, 1870 m, leg. Jun-jian He, 1 ♀, in Bj; Shaanxi Prov., border Shaanxi-Sichuan Provs., Daba Shan, pass 20 Km SSE Zhenping, 1700-1800 m, 31°44'N-109°35'E, 9-12.VII.2001, small creek vall./young dry mixed forest, leaf-litter, moss-sifted, leg. Wrase, 1 ♂ and 1 ♀ in CC.

Distribution: China (Hubei, Sichuan, Shaanxi).

Agathidium (Agathidium) ***hubeicum*** n. sp.
(Figs. 10, 20, 24)

Length 5.7 mm (holotype ♂). Dorsum uniformly black, venter reddish-brown, mesosternum lighter; antennae uniformly testaceous; legs reddish-brown. Microreticulation absent, present only in traces on elytra; puncturation fine and sparse on whole dorsum. Sutural striae absent.

Head: microreticulation absent; punctures small and superficial, separated from each other by 6-8 times their own diameter. Widest at the eyes; eyes flattened (fig. 10); antero-lateral margins uniformly raised; clypeus weakly emarginate; clypeal line absent. 3rd antennal segment 2 times longer than 2nd and than 4th + 5th together.

Pronotum: microreticulation absent; punctures smaller and more superficial than those on the head, separated from each other by 8-10 times their own diameter; 1.33 times as broad as head, less broader than long (width/length= 1.33) and moderately convex (width/height= 1.57); anterior margin very curved; lateral outline broadly rounded. Measurements of pronotum of holotype: length 2.10 mm, width 2.60 mm and height 1.65 mm.

Elytra: microreticulation almost absent, present only in traces; puncturation microscopic and little visible, punctures separated from each other by 2-15 times their own diameter. Slightly narrower than the pronotum, broader than long (width/length= 1) and weakly convex (width/height= 2.08); lateral outline with humeral angle very broadly rounded. Measurements of elytra of holotype: length 2.40 mm, width 2.40 mm and height 1.15 mm.

Metathoracic wings absent. Meso- and metasternum: median carina weakly, lateral lines absent, femoral lines almost complete, rounded at middle.

Legs: male hind femora with sharp tooth at posterior margin (fig. 20); tarsal formula: ♂ 5-5-4, ♀ unknown.

Aedeagus as in figure 24.

Discussion: *Agathidium hubeicum* n. sp. is similar to *A. inerme* Ang. & Dmz. (from Hubei); it differs in less length ratio 3rd/2nd antennal segments and pronotum/head, and in shape of aedeagus in dorsal and lateral view.

Derivatio nominis: after Hubei, the Province where the species was first collected.

Holotype ♂: China, Hubei Prov., Shennongjia Nat. Res., Guanmenshan, 23.VII.98, 1240 m, leg. H.-Z. Zhou, in Bj.

Distribution: China (Hubei).

Agathidium (Agathidium) inerme Ang. & Dmz.

Agathidium (Agathidium) inerme Angelini & De Marzo, 1998b, Revue suisse Zool., 105 (2): 365; Angelini & Cooter, 1999, Oriental Insects, 33: 193, 229; Angelini, 2000, Annali Mus. civ. St. nat. "G. Doria", 93: 164.

Material: China, Hubei Prov., Shennongjia Nat. Res., Pingqian area, 1-8.VIII.98, 1610 m, leg. H.-Z. Zhou, 2 ♂♂ and 1 ♀, in Bj and CC; Shaanxi Prov., border Shaanxi-Sichuan Provs., Daba Shan, pass 20 Km SSE Zhenping, 1700-1800 m, 31°44'N-109°35'E, 9-12.VII.2001, small creek vall./young dry mixed forest, leaf-litter, moss-sifted, leg. Wrase, 1 ♂ in CC.

Distribution: China (Hubei).

Agathidium (Agathidium) shennongjiaense n. sp. (Figs. 21, 25-27)

Length 4.55-4.80 mm (holotype ♂ 4.55 mm). Dorsum uniformly black, venter reddish-brown, mesosternum lighter; antennae uniformly testaceous; legs reddish-brown. Microreticulation absent; puncturation fine and sparse on whole dorsum. Sutural striae absent.

Head: microreticulation absent; punctures very small and superficial, separated from each other by 5-12 times their own diameter. Widest at the eyes; eyes flattened (fig. 27); antero-lateral margins uniformly raised; clypeus weakly emarginate; clypeal line absent. 3rd antennal segment twice as long as 2nd and longer than 4th + 5th together.

Pronotum: microreticulation absent; puncturation as that of head; 1.36 times as broad as head, longer than broad (width/length= 1.23) and moderately convex (width/height= 1.53); anterior margin very curved; lateral outline broadly rounded. Measurements of pronotum of holotype: length 1.62 mm, width 2.00 mm and height 1.30 mm.

Elytra: microreticulation absent, puncturation as that of head, hardly visible. As broad as pronotum, a little broader than long (width/length= 1.02) and less convex (width/height= 2); lateral outline with humeral angle very broadly rounded. Measurements of elytra of holotype: length 1.95 mm, width 2.00 mm and height 1.00 mm.

Metathoracic wings absent. Meso- and metasternum: median carina weakly, lateral lines incomplete, femoral lines incomplete, rounded at middle.

Legs: male hind femora with two sharp tooth at posterior margin (fig. 21); tarsal formula: ♂ 5-5-4, ♀ 5-4-4.

Aedeagus as in figure 25; spermatheca as in figure 26.

Discussion: *Agathidium shennongjiaense* n. sp. is similar to *A. grandicolle* Ang. (from Sichuan); it differs in lesser length ratio pronotum/head, in absence of metathoracic wings, in shape of male hind femora, with two sharp teeth at posterior margin, and in shape of the aedeagus in lateral view.

Derivatio nominis: after Shennongjia Nature Reserve where the species was collected.

Holotype ♂: China, Hubei Prov., Shennongjia nat. res., Xiaolongtan, 27.VII-9.VIII.98, 2180 m, leg. H.-Z. Zhou, in Bj.

Paratypes: same data as holotype, 1 ♀ in CA-MCSNG; same data, Jiuchong, 18.VII.98, 1240 m, leg. H.-Z. Zhou, 1 ♀, in CC; same data, 19.VII.98, 875 m, 1 ♀, in Bj; W Hubei Prov., Daba Shan, creek valley 11 Km NW Muyuping, 31°30'N-110°22'E, 1960 m, 18.VII.2001, creek valley, mixed deciduous forest, moss, leaves sifted, leg. Wrase, 1 ♂ in CC.

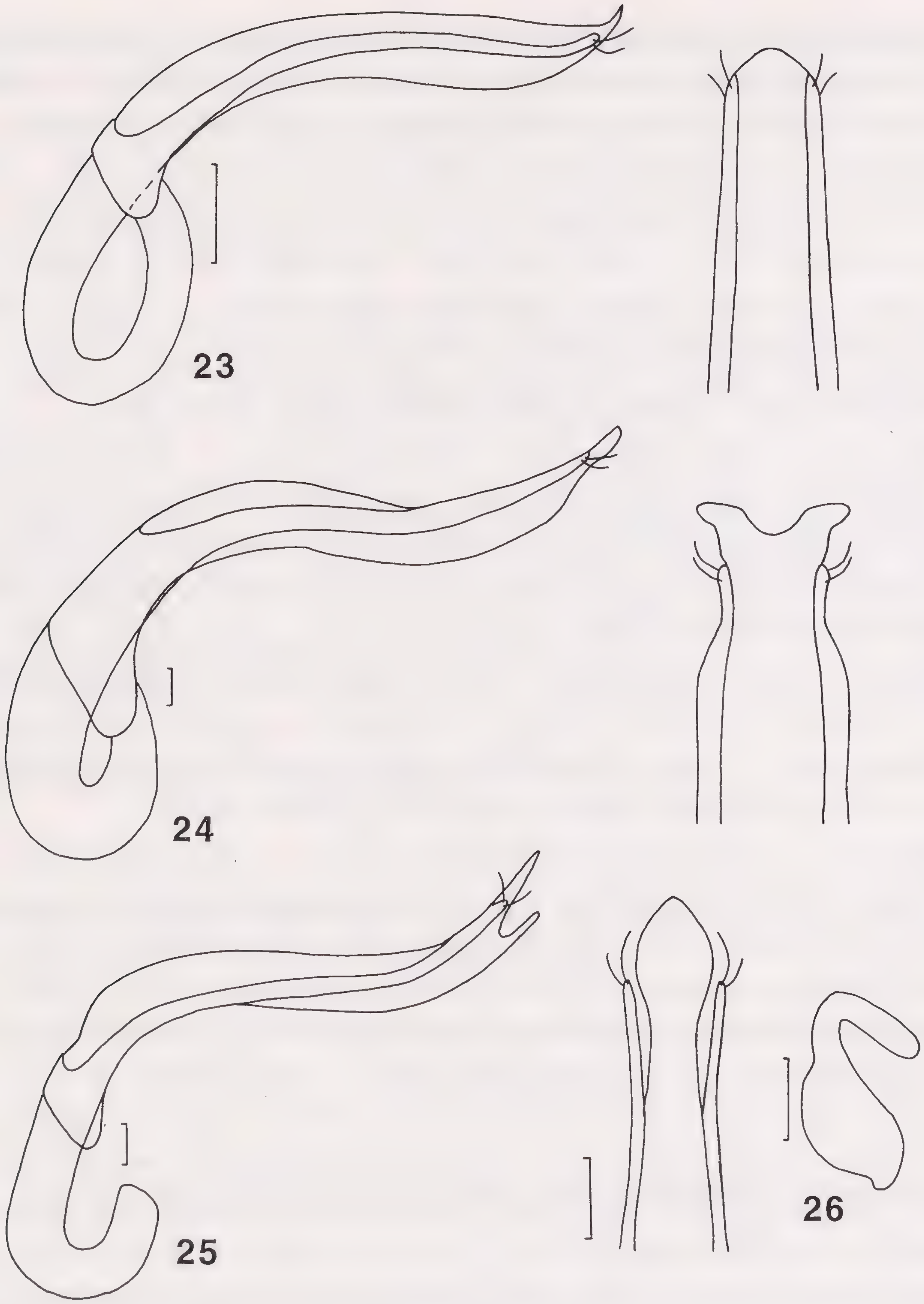
Distribution: China (Hubei).

Agathidium (Agathidium) melancholicum n. sp.

(Figs. 22, 28, 31)

Length 3.8 mm (holotype ♂). Dorsum uniformly reddish-brown, venter reddish-brown, mesosternum lighter; antennae uniformly testaceous; legs reddish-brown. Microreticulation absent; punctuation fine and sparse on whole dorsum. Sutural striae absent.

Head: microreticulation absent; punctures small and superficial, separated from each other by 5-10 times their own diameter. Widest at the eyes; eyes flattened (fig. 28); antero-lateral margins uniformly raised; clypeus moderately emarginate; clypeal line superficial. 3rd antennal segment 1.9 times longer than 2nd and than 4th + 5th together.



Figs. 23-26: Aedeagus (lateral and dorsal view) of: 23, *Agathidium* (*Agathidium*) *jiuchongense* n. sp.; 24, *A.* (*A.*) *hubeicum* n. sp.; 25, *A.* (*A.*) *shennongjiaense* n. sp.. Spermatheca of: 26, *A.* (*A.*) *shennongjiaense* n. sp.

Pronotum: microreticulation absent; puncturation as that of head; 1.4 times as broad as head, longer than broad (width/length= 1.34) and very convex (width/height= 1.48); anterior margin very curved; lateral outline broadly rounded. Measurements of pronotum of holotype: length 1.30 mm, width 1.75 mm and height 1.18 mm.

Elytra: microreticulation absent, puncturation as that of head, punctures separated from each other by 2-10 times their own diameter. Slightly narrower than the pronotum, a little broader than long (width/length= 1.03) and moderately convex (width/height= 1.77); lateral outline with humeral angle very broadly rounded. Measurements of elytra of holotype: length 1.65 mm, width 1.70 mm and height 0.96 mm.

Metathoracic wings absent. Meso- and metasternum: median carina sharp, lateral lines complete, femoral lines complete, rounded at middle.

Legs: male hind femora with sharp tooth at posterior margin (fig. 22); tarsal formula: ♂ 5-5-4, ♀ unknown.

Aedeagus as in figure 31.

Discussion: *Agathidium melancholicum* n. sp. is similar to *A. hani* Ang. (from Sichuan) and *A. lugubre* Ang.& Dmz. (from Guangxi and Sichuan); it differs in presence of clypeal line. *A. melancholicum* n. sp. is the only species from China of the *dentatum* group with clypeal line.

Holotype ♂: China, Hubei Prov., Shennongjia Nat. Res., Shennongding, 9.VIII.98, 2700 m, leg. H.-Z. Zhou, in Bj.

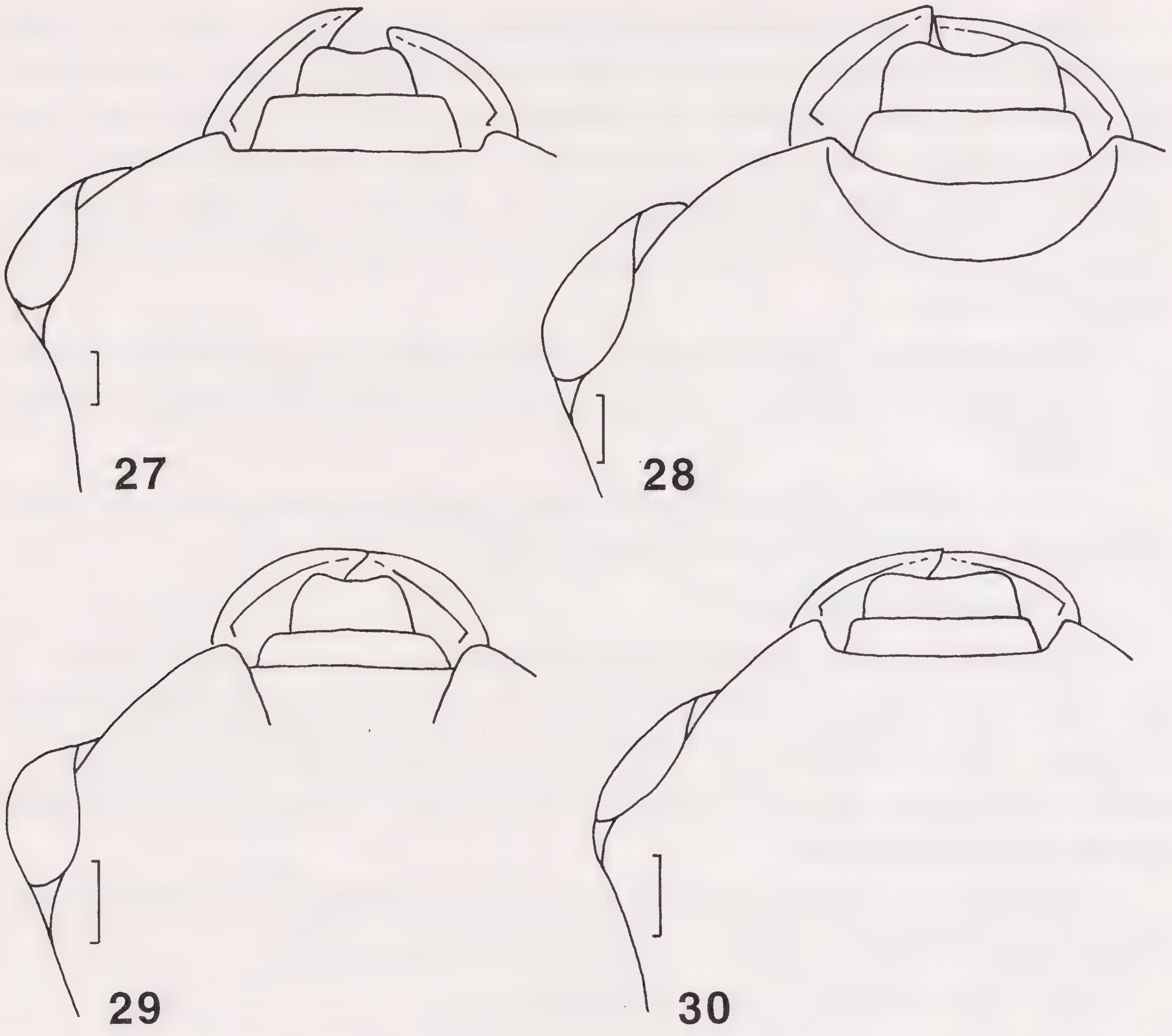
Distribution: China (Hubei).

Agathidium (Agathidium) lugubre Ang. & Dmz.

Agathidium (Agathidium) lugubre Angelini & De Marzo, 1998b, Revue suisse Zool., 105 (2): 365; Angelini, 1999, Revue suisse Zool, 106 (4): 918; 2000, Annali Mus. civ. St. nat. "G. Doria", 93: 164; Angelini & Cooter, 1999, Oriental Insects, 33: 193, 230.

Material: China, Jiangxi Prov., Wuyi Shan N. R., Huangganshan, ca. 2000 m, 5.VI.2001, 27°83'N-117°76'E, *Cryptomeira, Stewartia* and *Rhododendron* litter, leg. Cooter & Hlaváč, 1 ♂ and 4 ♀♀ in CC; same data but conifer and bamboo broad-leaf litter, 5.VI.2001, 1 ♂ in CC.

Distribution: China (Guangxi, Jiangxi, ? Sichuan). New record for Jiangxi.



Figs. 27-30: Head (dorsal view) of: 27, *Agathidium* (*Agathidium*) *shennongjiaense* n. sp.; 28, *A.* (*A.*) *melancholicum* n. sp.; 29, *A.* (*Microceble*) *wuyishanicum* n. sp.; 30, *A.* (*Macroceble*) *hlavaci* n. sp.

Subgenus ***Microceble*** Angelini & De Marzo, 1986

andrewesi group

Agathidium (Microceble) wuyishanicum n. sp.

(Figs. 29, 32, 33, 36)

Length 3.1-3.4 mm (holotype ♂ 3.3 mm). Dorsum reddish-brown more or less dark; mesosternum testaceous, metasternum reddish-brown; antennae testaceous but with segments 9-10 darker, antennal club ♂ of 4 segments (8°-11°); legs reddish-brown. Microreticulation absent; puncturation fine and sparse on head and pronotum, absent on elytra. Sutural striae absent.

Head: microreticulation absent; punctures small, superficial, separated from each other by 2-8 times their own diameter. Head widest at the eyes (fig. 29), eyes hemispherical; antero-lateral margins distinctly raised up; clypeus weakly emarginate, with a short weak groove and small pit either side. 3rd antennal segment 1.5 times longer than 2nd and shorter than the 4th + 5th together.

Pronotum: microreticulation absent; punctures smaller and more superficial than those of the head, separated from each other by 1-10 times their own diameter; 1.8 times as broad as head, less broader than long (width/length= 1.3) and moderately convex (width/height= 1.54); anterior margin weakly curved; lateral outline broadly rounded. Measurements of pronotum of holotype: length 1.15 mm, width 1.50 mm and height 0.97 mm.

Elytra: microreticulation almost absent, present only in traces; puncturation absent, only rare microscopic punctures. Moderately broader than the pronotum, a little broader than long (width/length= 1.06) and moderately convex (width/height= 1.6); lateral outline with humeral angle very broadly rounded. Measurements of elytra of holotype: length 1.50 mm, width 1.60 mm and height 1.00 mm.

Metathoracic wings present. Meso- and metasternum: median carina sharp, lateral lines absent, femoral lines incomplete, prolonged between the metacoxae.

Legs: male hind femora rounded at posterior margin (fig. 36); tarsal formula: ♂ 5-5-4, ♀ 5-4-4.

Aedeagus as in figure 32; spermatheca as in figure 33.

Discussion: *Agathidium wuyishanicum* n. sp. is similar to *A. xilingense* Ang. (from Sichuan); it differs in greater body length and in possessing a four segmented antennal club in male.

Derivatio nominis: named after Wuyi Shan, the mountain range where the type series was collected.

Holotype ♂: China, Fujian Prov., Wuyi Shan N.R., ca. 820 m, ca. 2 Km NW Tongmu vill., 27°75'N-117°66'E, 30.V-7.VI.2001, Bamboo broad-leaf forest litter, leg. Cooter & Hlaváč, in Bj.

Paratypes: same data as holotype, 6 ♂♂ in CC; Wuyi Shan N.R., ca. 1300 m, Qiliqiao-Guadun road, 27°73'N-117°64'E, 1.VI.2001, Hardwood + bamboo litter, leg. Cooter & Hlaváč, 1 ♀ in Bj; same data but ca. 1200 m, ca. 5 Km from Qiliqiao, mixed forest litter, 1 ♂ and 1 ♀ in CA-MCSNG.

Distribution: China (Fujian).

Subgenus ***Macroceble*** Angelini, 1993

Agathidium (Macroceble) hlavaci n. sp. (Figs. 30, 34, 35, 37)

Length 2.50-2.75 mm (holotype ♂ 2.60 mm). Dorsum uniformly reddish-brown, venter lighter; antennae uniformly testaceous; legs reddish-brown. Microreticulation almost absent, present only in traces on whole dorsum; puncturation fine and sparse on head and pronotum. Sutural striae absent.

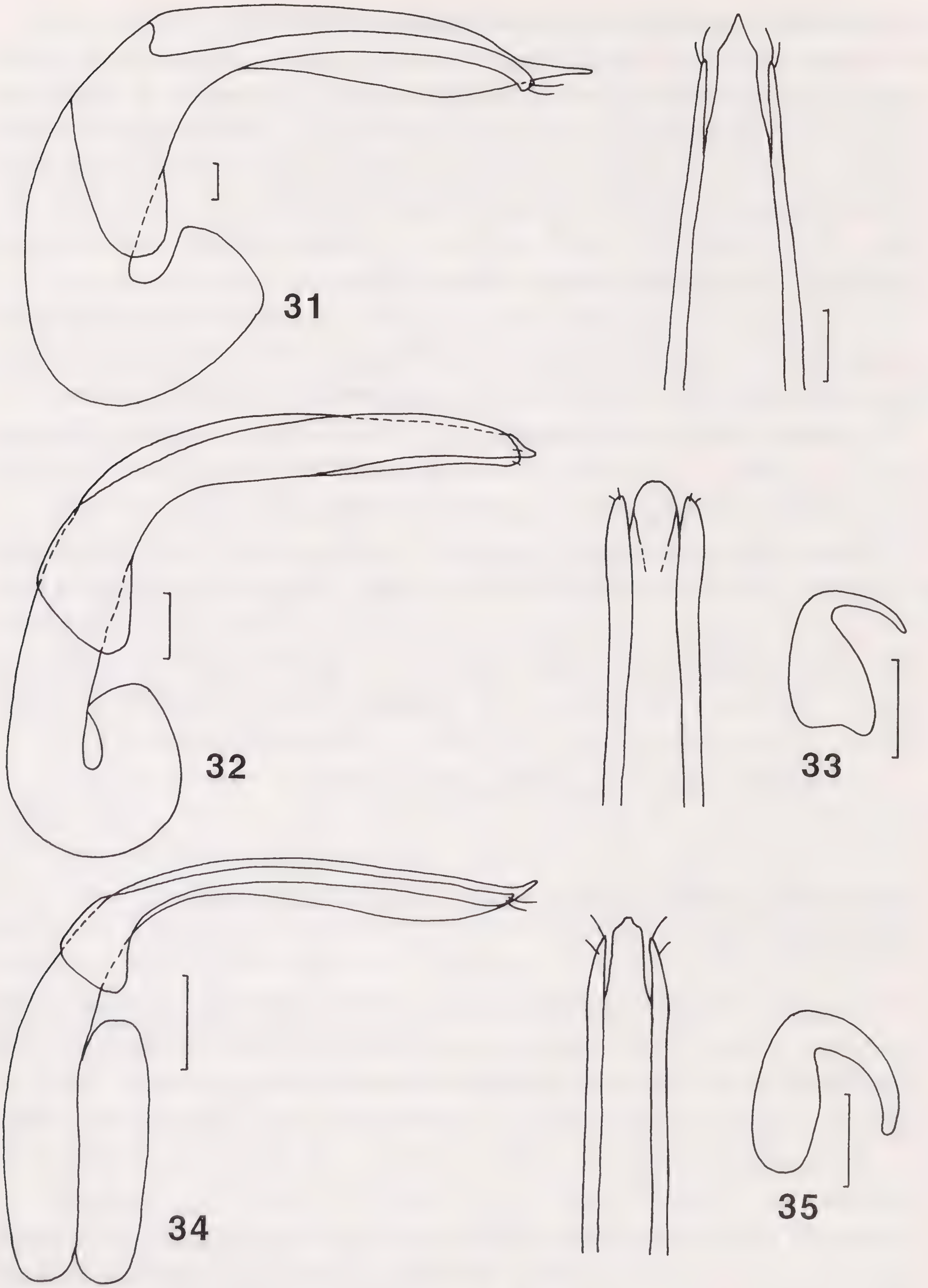
Head: microreticulation almost absent, present only in traces; punctures very small, superficial, separated from each other by 5-8 times their own diameter. Widest at posterior margin of the eyes; eyes flattened (fig. 30); antero-lateral margins uniformly raised; clypeus moderately emarginate; clypeal line absent. 3rd antennal segment 1.15 times as long as 2nd and shorter than 4th + 5th together.

Pronotum: microreticulation almost absent, present only in traces; punctures as those of head, separated from each other by 6-10 times their own diameter; 1.3 times as broad as head, moderately broader than long (width/length= 1.5) and moderately convex (width/height= 1.5); anterior margin weakly curved; lateral outline broadly rounded. Measurements of pronotum of holotype: length 1.15 mm, width 1.10 mm and height 0.67 mm.

Elytra: microreticulation almost absent, present only in traces; puncturation absent. Slightly broader than the pronotum, a little longer than broad (width/length= 0.95) and moderately convex (width/height= 1.64); lateral outline with humeral angle very broadly rounded. Measurements of elytra of holotype: length 1.10 mm, width 1.18 mm and height 0.62 mm.

Metathoracic wings absent. Meso- and metasternum: median carina sharp, lateral lines absent, femoral lines absent, a small tubercle present between the metacoxae; metasternum short, meso- and metacoxae almost touching.

Legs: male hind femora curved at posterior margin (fig. 37); tarsal formula: ♂ 5-5-4, ♀ 5-4-4.



Figs. 31-35: Aedeagus (lateral and dorsal view) of: 31, *Agathidium* (*Agathidium*) *melancholicum* n. sp.; 32, *A.* (*Microceble*) *wuyishanicum* n. sp.; 34, *A.* (*Macroceble*) *hlavaci* n. sp. Spermatheca of: 33, *A.* (*Microceble*) *wuyishanicum* n. sp.; 35, *A.* (*Macroceble*) *hlavaci* n. sp.

Aedeagus as in figure 34; spermatheca as in figure 35.

Discussion: *Agathidium hlavaci* n. sp. is similar to *A. aterrimum* Ang. & Dmz. (from Malaya) in shape of head; it differs in presence of puncturation on pronotum, shape of male hind femora, greater length ratio pronotum/head, smaller size, different male and female tarsal formula. *A. hlavaci* n. sp. it is the only species of the subg. *Macroceble* with head widest at posterior margin of the eyes found in China, all the others are from Malaya.

Derivatio nominis: named after Peter Hlaváč, co-collector of the material described here, a good friend, excellent field companion and authority on Pselaphinae and myrmecophilous Staphylinidae.

Holotype ♂: China, Jiangxi Prov., Wuyi Shan N.R., Huangganshan, ca. 2000 m, 5.VI.2001, 27°84'N-117°76'E, *Cryptomeira*, *Stewartia* and *Rhododendron* litter, leg. Cooter & Hlaváč, in Bj.

Paratypes: same data as holotype, 1 ♂ and 2 ♀♀ in CC; same data but 5.VI.2001, 27°83'N-117°76'E, conifer, bamboo broad-leaf litter, 1 ♀ in CA-MCSNG; same data but ca. 2100 m, 5.VI.2001, 27°83'N-117°76'E, broad-leaf bamboo litter, 2 ♂♂ and 1 ♀ in CC; same data but ca. 1000 m, ca. 4 Km NE Tongmu vill., 27°75'N-117°66'E, bamboo mixed forest litter, 7.VI.2001, 1 ♂ in CA-MCSNG.

Distribution: China (Jiangxi).

Agathidium (Macroceble) dongnanense n. sp.
(Figs. 38, 42, 48)

Length 1.7-1.75 mm (holotype ♂ 1.7 mm). Dorsum uniformly reddish-brown, venter lighter; antennae uniformly testaceous; legs reddish-brown. Microreticulation almost absent, present only in traces on head and pronotum; puncturation very small and sparse on head and pronotum, almost absent on elytra. Sutural striae absent.

Head: microreticulation absent; punctures very small, superficial, separated from each other by 5-8 times their own diameter. Head widest behind eyes, temple 1/2 as long as the eye; eyes flattened and little visible at dorsum (fig. 48); antero-lateral margins uniformly raised; clypeus very emarginate; clypeal line absent. 3rd antennal segment as long as 2nd and than 4th + 5th together.

Pronotum: microreticulation present in vague traces; punctures as those of head, separated from each other by 4-8 times their own diameter; 1.19 times as broad as head, moderately broader than long (width/length= 1.52) and moderately convex (width/height= 1.62); anterior margin weakly curved; lateral outline broadly rounded. Measurements of pronotum of holotype: length 0.53 mm, width 0.81 mm and height 0.50 mm.

Elytra: microreticulation present in vague traces; punctures absent, only rare microscopic punctures. Slightly narrower than the pronotum, longer than broader (width/length= 1) and moderately convex (width/height= 1.65); lateral outline with humeral angle very broadly rounded. Measurements of elytra of holotype: length 0.78 mm, width 0.78 mm and height 0.47 mm.

Metathoracic wings absent. Meso- and metasternum: median carina sharp, lateral lines absent, femoral lines absent, a sharp tubercle present between the metacoxae; metasternum short, meso- and metacoxae almost touching.

Legs: male hind femora rectilinear at posterior margin (fig. 38); tarsal formula: ♂ 5-5-4, ♀ 4-4-4.

Aedeagus as in figure 42.

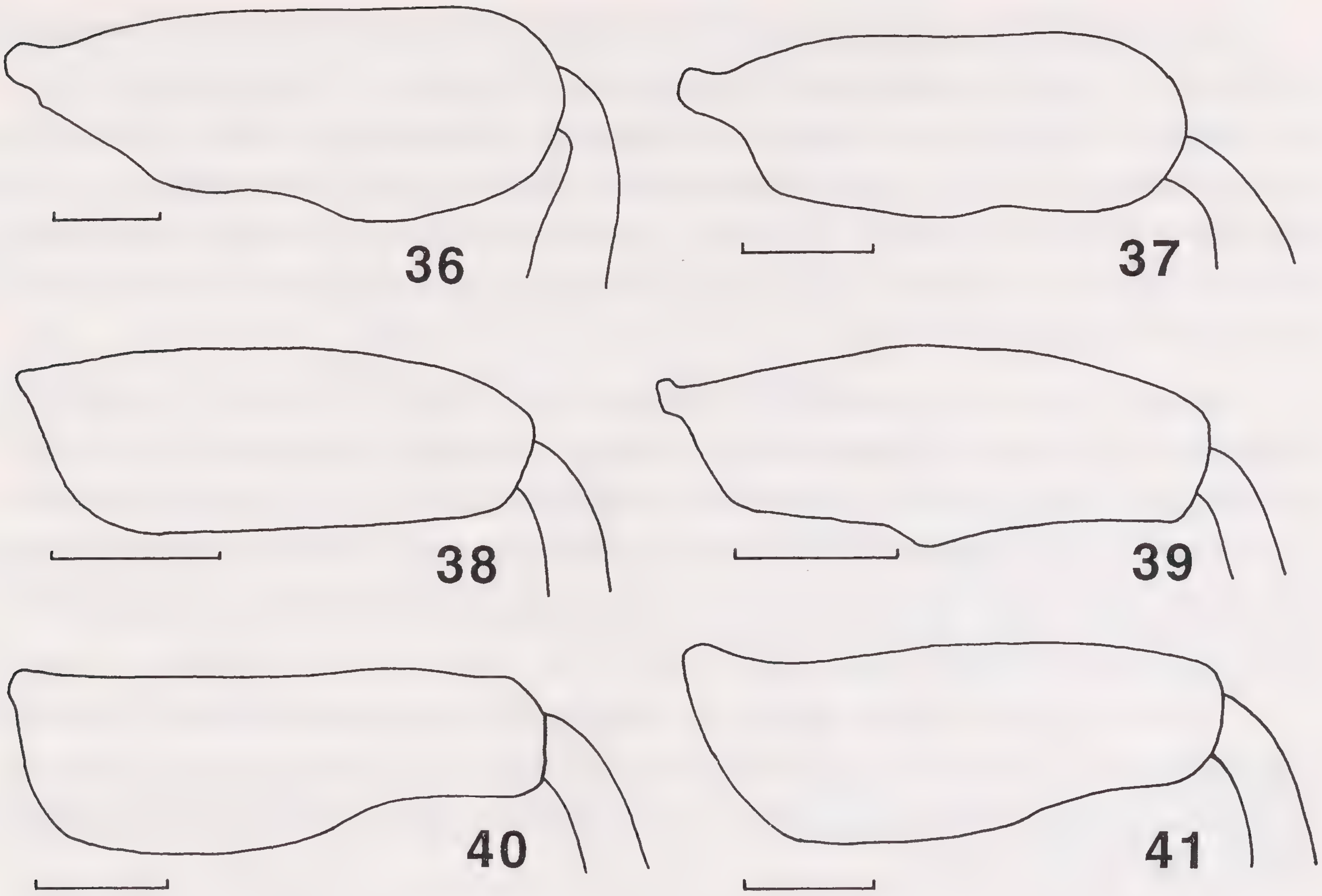
Discussion: *Agathidium dongnanense* n. sp. together to *A. penultimum* n. sp. and *A. nanum* Ang. (from Hubei) differs from all other species of this subgenus in shape of head with widest behind eyes and in having temple 1/2 as long as the eye; from *A. penultimum* differs in shape of aedeagus and male hind femora, in having a lesser length ratio 3rd/2nd antennal segments, in the clypeus being very emarginate and in smaller size; from *A. nanum* differs in lesser length ratio 3rd/2nd antennal segments.

Derivatio nominis: the name, derived from Mandarin, means "south east", the region of China containing Fujian and Jiangxi Provinces.

Holotype ♂: China, Jiangxi Prov., Wuyi Shan N.R., Huangganshan, ca. 2000 m, 5.VI.2001, 27°83'N-117°76'E, conifer-bamboo broad-leaf litter, leg. Cooter & Hlaváč, in Bj.

Paratype: China, Fujian Prov., Wuyi Shan N.R., road from Qiliqiao to Guadun, ca. 1150 m, 27°73'N-117°64'E, 1.VI.2001, sieved banana palm litter, leg. Cooter & Hlaváč, 1 ♀ in CC.

Distribution: China (Jiangxi and Fujian).



Figs. 36-41: Male (or female: fig. 40) hind femora of: 36, *Agathidium* (*Microceble*) *wuyishanicum* n. sp.; 37, *A.* (*Macroceble*) *hlavaci* n. sp.; 38, *A.* (*Macr.*) *dongnanense* n. sp.; 39, *A.* (*Macr.*) *penultimum* n. sp.; 40, *A.* (*Macr.*) *soror* n. sp.; 41, *A.* (*Macr.*) *ultimum* n. sp.

Agathidium (Macroceble) penultimum n. sp.

(Figs. 39, 43, 44, 49)

Length 2.2-2.3 mm (holotype ♂ 2.2 mm). Dorsum uniformly reddish-brown, venter reddish-brown, mesosternum lighter; antennae uniformly testaceous; legs reddish-brown. Microreticulation almost absent, present only in traces on whole dorsum; puncturation almost absent, present only rare microsopic punctures. Sutural striae absent.

Head: microreticulation almost absent, present only in traces; puncturation absent. Head widest behind eyes, temple 1/2 as long as the eye; eyes flattened and hardly visible dorsally (fig. 49); antero-lateral margins uniformly raised; clypeus very emarginate; clypeal line absent. 3rd antennal segment 1.1 times as long as 2nd and shorter than 4th + 5th together.

Pronotum: microreticulation almost absent, present only in traces; puncturation absent; 1.15 times as broad as head, slightly broader than long (width/length= 1.37) and moderately convex (width/height= 1.5); anterior margin weakly curved; lateral outline broadly rounded. Measurements of pronotum of holotype: length 0.70 mm, width 0.96 mm and height 0.64 mm.

Elytra: microreticulation almost absent, present only in traces; puncturation absent. Slightly broader than the pronotum, a little longer than broad (width/length= 0.98) and moderately convex (width/height= 1.52); lateral outline with humeral angle very broadly rounded. Measurements of elytra of holotype: length 1.02 mm, width 1.00 mm and height 0.63 mm.

Metathoracic wings absent. Meso- and metasternum: median carina weakly, lateral lines absent, femoral lines absent, a small tubercle present between the metacoxae; metasternum short, meso- and metacoxae almost touching.

Legs: male hind femora curved at posterior margin (fig. 39); tarsal formula: ♂ 5-5-4, ♀ 4-4-4.

Aedeagus as in figure 43; spermatheca as in figure 44.

Discussion: see *Agathidium dongnanense* n. sp.

Derivatio nominis: This species is, chronologically, the penultimate that the senior author will describe before concluding nearly 20 years of studying the Agathidiini.

Holotype ♂: China, Hubei Prov., Shennongjia Nat. Res., Jiuchong, 19.VII.98, 875 m, leg. H.-Z. Zhou, in Bj.

Paratypes: same data as holotype, 19.VII.98, 900 m, 2 ♀♀, in CC and CA-MCSNG.

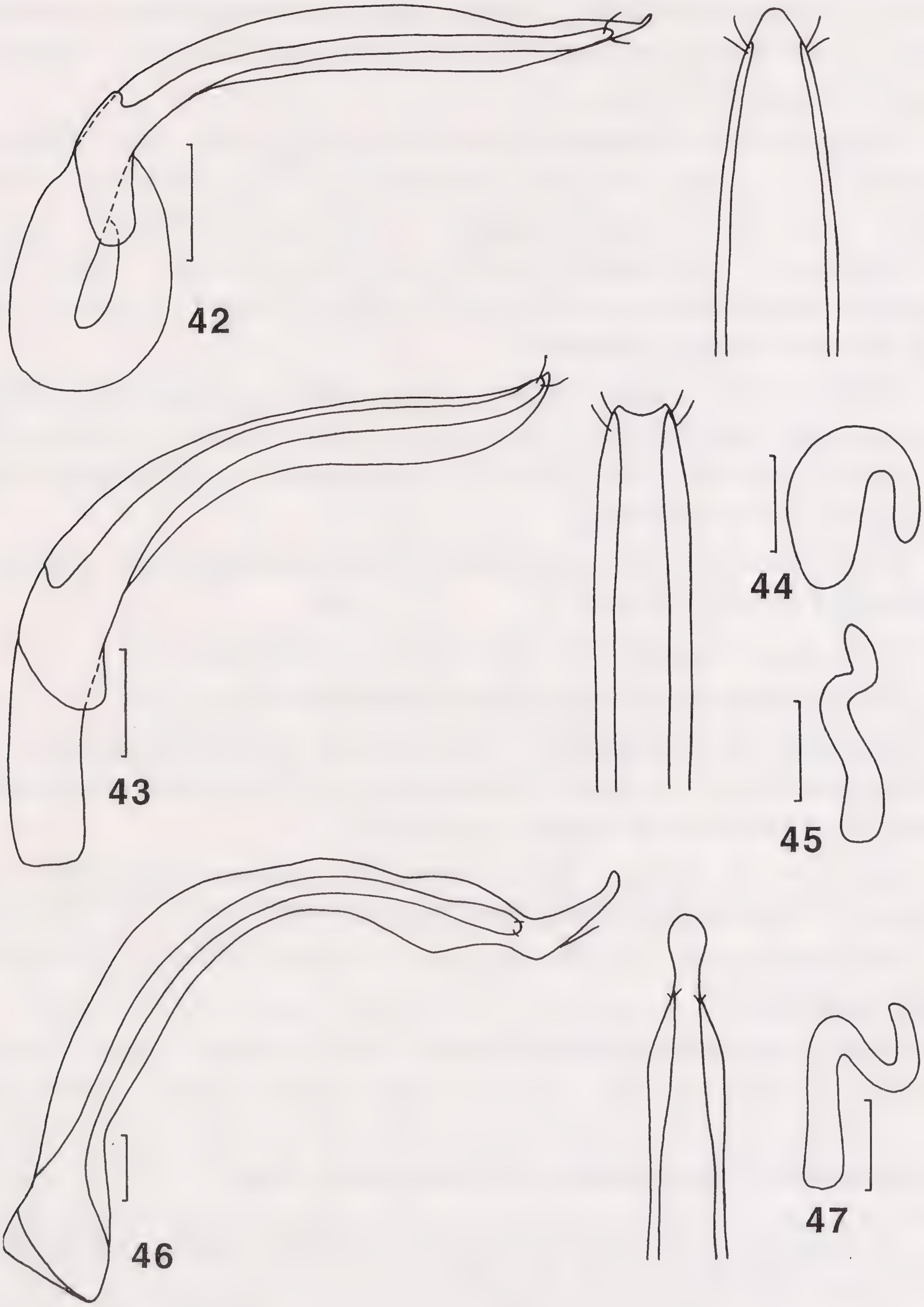
Distribution: China (Hubei).

Agathidium (Macroceble) cfr. ***emeicum*** Ang.

Agathidium (Macroceble) emeicum Angelini, 2000, Annali Mus. civ. St. nat. "G. Doria", 93: 157, 165.

Material: China, Jiangxi Prov., Wuyi Shan N.R., Huangganshan, ca. 2000 m, 5.VI.2001, 27°84'N-117°76'E, *Cryptomeira*, *Stewartia* and *Rhododendron* litter, leg. Cooter & Hlaváč, 1 ♂ in CC.

Discussion: specimen similar to the type, it differs in colouring of antennal club.



Figs. 42-47: Aedeagus (lateral and dorsal view) of: 42, *Agathidium* (*Macroceble*) *dongnanense* n. sp.; 43, *A.* (*Macr.*) *penultimum* n. sp.; 46, *A.* (*Macr.*) *ultimum* n. sp. Spermatheca of: 44, *A.* (*Macroceble*) *penultimum* n. sp.; 45, *A.* (*Macr.*) *soror* n. sp.; 47, *A.* (*Macr.*) *ultimum* n. sp.

Distribution: China (Sichuan and Jiangxi). New record for Jiangxi if the determination is correct.

Agathidium (Macroceble) soror n. sp. (Figs. 40, 45, 50)

Length 2.7 mm (holotype ♀). Dorsum uniformly dark reddish-brown, venter lighter; antennae uniformly testaceous; legs reddish-brown. Microreticulation absent; puncturation fine and sparse on whole dorsum. Sutural striae absent.

Head: microreticulation absent; punctures very small, superficial, separated from each other by 5-6 times their own diameter. Widest at the eyes; eyes hemispherical (fig. 50); antero-lateral margins uniformly raised; clypeus weakly emarginate; clypeal line absent. 3rd antennal segment as long as 2nd and than 4th + 5th together.

Pronotum: microreticulation absent; punctures as those of head, separated from each other by 2-10 times their own diameter; 1.27 times as broad as head, broader than long (width/length= 1.15) and very convex (width/height= 1.27); anterior margin weakly curved; lateral outline broadly rounded. Measurements of pronotum of holotype: length 1.00 mm, width 1.15 mm and height 0.90 mm.

Elytra: microreticulation absent; punctures as those of head, separated from each other by 1-15 times their own diameter. Slightly narrower than the pronotum, a little longer than broad (width/length= 0.95) and very convex (width/height= 1.28); lateral outline with humeral angle very broadly rounded. Measurements of elytra of holotype: length 1.10 mm, width 1.05 mm and height 0.82 mm.

Metathoracic wings absent. Meso- and metasternum: median carina absent, lateral lines absent, femoral lines absent, a small tubercle present between the metacoxae; metasternum short, meso- and metacoxae almost touching.

Legs: female hind femora dilated at posterior margin (fig. 40); tarsal formula: ♂ unknown, ♀ 4-4-4.

Spermatheca as in figure 45.

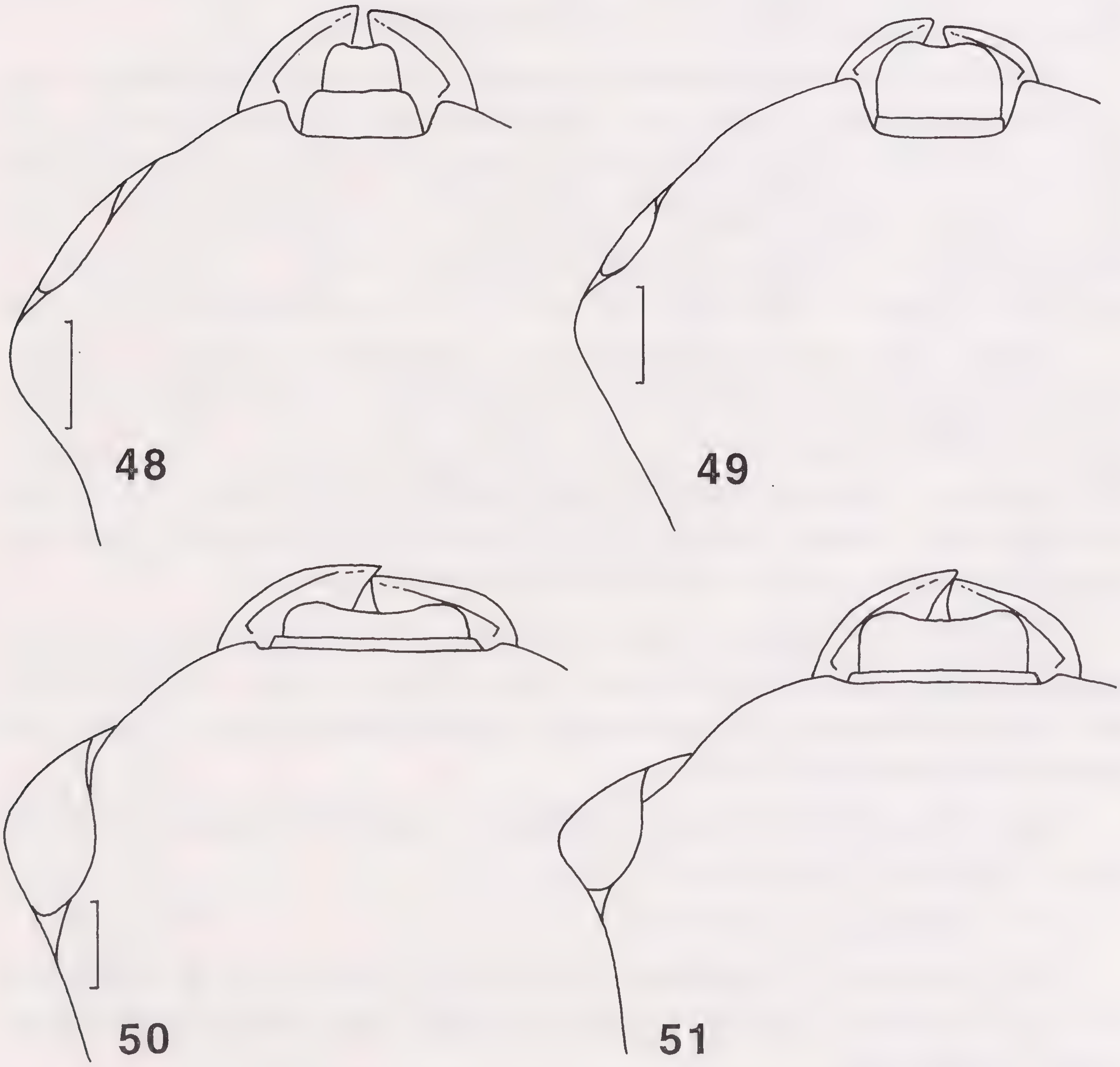
Discussion: *Agathidium soror* n. sp. is similar to *A. ultimum* n. sp. (from Hubei); it differs in greater length ratio pronotum/head and in less length size.

Derivatio nominis: known from the female holotype and one other very similar female specimen which may or may not be co-specific.

Holotype ♀: China, Guangxi Prov., Cenwanglao Shan, 2000 m, 2.VII.1999, Broad leaf forest, closed bamboo under storey litter, leg. J. R. Fellowes, in CC.

Other material: China, Guangxi Prov., Nepo, Defu, 3-6.IV.1998, 1400 m, leg. Hong-Zhang Zhou, 1 ♀, in Bj (spermatheca with basal part shorter and greater than holotype; antennae greater than holotype; nova species?)

Distribution: China (Guangxi).



Figs. 48-51: Head (dorsal view) of: 48, *Agathidium* (*Macroceble*) *dongnanense* n. sp.; 49, *A.* (*Macr.*) *penultimum* n. sp.; 50, *A.* (*Macr.*) *soror* n. sp.; 51, *A.* (*Macr.*) *ultimum* n. sp.

Agathidium (Macroceble) ultimum n.sp. (Figs. 41,46,47,51)

Length 2.9-3.5 mm (holotype ♂ 2.2 mm). Dorsum of head reddish-brown, pronotum and elytra black, venter reddish-brown; legs reddish-brown. Microreticulation absent; puncturation clear on head, very small on pronotum and elytra. Sutural striae absent.

Head: microreticulation absent; punctures small but clearly impressed, separated from each other by 2-5 times their own diameter. Widest at the eyes; eyes hemispherical (fig. 51); antero-lateral margins uniformly raised; clypeus weakly emarginate; clypeal line absent. 3rd antennal segment 0.8 times as long as 2nd and than 4th + 5th together.

Pronotum: microreticulation absent; punctures very small, superficial, separated from each other by 1-10 times their own diameter; 1.25 times as broad as head, slightly broader than long (width/length= 1.07) and very convex (width/height= 1.3); anterior margin very curved; lateral outline broadly rounded. Measurements of pronotum of holotype: length 1.07 mm, width 1.15 mm and height 0.88 mm.

Elytra: microreticulation absent; punctures as those of pronotum, separated from each other by 2-15 times their own diameter. As broad as pronotum, clearly longer than broad (width/length= 0.92) and moderately convex (width/height= 1.4); lateral outline with humeral angle very broadly rounded. Measurements of elytra of holotype: length 1.25 mm, width 1.15 mm and height 0.82 mm.

Metathoracic wings absent. Meso- and metasternum: median carina sharp, lateral lines absent, femoral lines absent, a small tubercle present between the metacoxae; metasternum short, meso- and metacoxae almost touching.

Legs: male hind femora curved at posterior margin (fig. 41); tarsal formula: ♂ 5-5-4, ♀ unknown (paratype ♀ without anterior tarsi).

Aedeagus as in figure 46; spermatheca as in figure 47.

Discussion: see *A. soror* n. sp.

Derivatio nominis: Chronologically the final species to be described by the senior author concluding almost 20 years of study of the Agathidiini.

Holotype ♂: China, Hubei Prov., Shennongjia Nat. Res., Jiuchong, 19.VII.98, 900 m, leg. H.-Z. Zhou, in Bj.

Paratype: same data as holotype, 1 ♀, in CC.

Distribution: China (Hubei).

REFERENCES

Angelini F., 1995 - Revisione tassonomica delle specie paleartiche del genere *Agathidium* Panzer (Coleoptera, Leiodidae, Agathidiini) - *Monogr. Mus. reg. Sci. nat.*, Torino, 18: 1-484.

Angelini F., 1999 - New species of *Agathidium* Panzer from China - *Rev. suisse Zool.*, Genève, 106 (4): 913-927.

Angelini F., 2000 - Descrizione di 30 nuove specie di Agathidiini della Cina e Taiwan - *Annali Mus. civ. St. nat. "G. Doria"*, Genova, 93: 107-166.

Angelini F., 2001 - LXXXIII contributo alla conoscenza degli Agathidiini delle regioni paleartica e orientale: descrizione di nuove specie e nuovi dati corologici. (Coleoptera, Leiodidae) - *Annali Mus. civ. St. nat. "G. Doria"*, Genova, 94: 313-394.

Angelini F. & Cooter J., 1998 - New species of Agathidiini Westwood (Coleoptera: Leiodidae, Leiodinae) from China - *Entom. Gazette*, London, 49: 131-137.

Angelini F. & Cooter J., 1999 - The Agathidiini of China with descriptions of twelve new species of *Agathidium* Panzer (Coleoptera: Leiodidae) - *Oriental Insects*, Gainesville, 33: 187-232.

Angelini F. & De Marzo L., 1998a - Supplement to the knowledge of the Agathidiini of Taiwan (Coleoptera, Leiodidae) - *Rev. suisse Zool.*, Genève, 105 (1): 125-138.

Angelini F. & De Marzo L., 1998b - Agathidiini from China, with description of 14 new species - *Rev. suisse Zool.*, Genève, 105 (2): 351-373.

Angelini F. & Švec Z., 1994 - Review of Chinese species of the subfamily Leiodinae - *Acta Soc. zool. bohem.*, Praha, 58: 1-31.

Hlisnikovský J., 1964 - Monographische Bearbeitung der Gattung *Agathidium* Panzer - *Acta ent. Mus. nat. Pragae*, suppl. 5: 1-255.

Roubal J., 1911 - Koleopterologické vysledky mé cesty na Kavkaz v cervenci r. 1911 - *Čas. Čes. Spol. Ent.*, Praha, 8: 48-50.

ABSTRACT

Descriptive and/or collecting data are presented for 21 species, 108 specimens, of Agathidiini recently collected in China (Fujian, Jiangxi, Hubei, Shaanxi and Guangxi Provinces and Beijing region) by one of the authors (JC) and by Dr Petr Hlaváč, Dr John Fellowes, Dr David Wrase and Prof. Hong-Zhang Zhou.

The following new species are described: *Cyrtoplastus fujianicus* n. sp. (Fujian), *Agathidium* (*Neoceble*) *zhoui* n. sp. (Hubei), *A.* (*Agathidium*) *patris* n. sp. (Fujian), *A.* (*A.*) *paralasti* n. sp. (Fujian), *A.* (*A.*) *huangganshanicum* n. sp. (Jiangxi), *A.* (*A.*) *jiuchongense* n. sp. (Hubei), *A.* (*A.*) *hubeicum* n. sp. (Hubei), *A.* (*A.*) *shennongjiaense* n. sp. (Hubei), *A.* (*A.*) *melancholicum* (Hubei), *A.* (*Microceble*) *wuyishanicum* n. sp. (Fujian), *A.* (*Macroceble*) *hlavaci* n. sp. (Jiangxi), *A.* (*Macr.*) *dongnanense* n. sp. (Fujian, Jiangxi)), *A.* (*Macr.*) *penultimum* n. sp. (Hubei), *A.* (*Macr.*) *soror* n. sp. (Guangxi), *A.* (*Macr.*) *ultimum* n. sp. (Hubei).

Agathidium mequignoni Roubal is recorded as new to China (Beijing region) and

Cyrtoplastus chinensis Ang. & Švec, *Agathidium inerme* Ang. & Dmz. and *Agathidium lugubre* Ang. & Dmz. respectively as new to Hubei, Shaanxi and Jiangxi Province; if the determination is correct *Agathidium emeicum* Ang. is newly recorded for Jiangxi Province too.

RIASSUNTO

Sono riportati i dati di cattura di 21 specie, 108 esemplari, di Agathidiini provenienti dalla Cina (Hubei, Jiangxi, Shaanxi, Fujian e Beijing) e raccolti da uno degli Autori (JC), dal Dr. Petr Hlaváč, dal Dr. John Fellowes, dal Dr. David Wrase e dal Prof. Hong-Zhang Zhou.

Sono descritte le seguenti nuove specie: *Cyrtoplastus fujianicus* n. sp. (Fujian), *Agathidium* (*Neoceble*) *zhoui* n. sp. (Hubei), *A.* (*Agathidium*) *patris* n. sp. (Fujian), *A.* (*A.*) *paralasti* n. sp. (Fujian), *A.* (*A.*) *huangganshanicum* n. sp. (Jiangxi), *A.* (*A.*) *jiuchongense* n. sp. (Hubei), *A.* (*A.*) *hubeicum* (Hubei), *A.* (*A.*) *shennongjiaense* n. sp. (Hubei), *A.* (*A.*) *melancholicum* n. sp. (Hubei), *A.* (*Microceble*) *wuyishanicum* n. sp. (Fujian), *A.* (*Macroceble*) *hlavaci* n. sp. (Jiangxi), *A.* (*Macr.*) *dongnanense* n. sp. (Fujian, Jiangxi), *A.* (*Macr.*) *penultimum* n. sp. (Hubei), *A.* (*Macr.*) *soror* n. sp. (Guangxi), *A.* (*Macr.*) *ultimum* n. sp. (Hubei).

Agathidium mequignoni Roubal è nuovo per la Cina (regione di Beijing) mentre *Cyrtoplastus chinensis* Ang. & Švec, *Agathidium inerme* Ang. & Dmz. e *Agathidium lugubre* Ang. & Dmz. sono nuovi rispettivamente per le province di Hubei, di Shaanxi e di Jiangxi. *Agathidium emeicum* Ang. risulterebbe nuovo per lo Jiangxi se l'attuale determinazione si confermerà esatta.